

ABSTRACT OF THE DISCLOSURE

A fuel cell in which optimum proton conductivity is maintained even in a dry atmosphere and in which the output is not lowered is provided. The fuel cell of the present invention includes a fuel electrode, an oxygen electrode and a proton conductor film disposed therebetween. The fuel electrode and the oxygen electrode are formed of powders of a carbonaceous material as an electrode material. A proton conductor composed of a carbonaceous material mainly composed of carbon and proton dissociative groups introduced into the carbonaceous material is present on the surfaces of the fuel and/or oxygen electrodes. The proton conductor can exhibit optimum proton conductivity without humidification.